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An Exploration of Spiritual Superiority: The Parado of Self-Enhancement

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Author note

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We have not submitted this manuscript anywhere else. The research was conducted with human participants who participated voluntarily after informed consent. We have followed all ethical guidelines in the treatment of participants and in conducting and analysing the studies.

All raw data are freely available to any researcher wishing to use them for non-commercial purposes, without breaching participant confidentiality.
An Exploration of Spiritual Superiority: The Paradox of Self-Enhancement

Abstract

Spiritual training is assumed to reduce self-enhancement, but may have the paradoxical effect of boosting superiority feelings. It can, thus, operate like other self-enhancement tools and contribute to a contingent self-worth that depends on one’s spiritual accomplishments. In three studies (N=533, N=2223, N=965), a brief measure of spiritual superiority showed good internal consistency and discriminant validity. As predicted, it was distinctly related to spiritual contingency of self-worth, illustrating that the self-enhancement function of spirituality is similar to other contingency domains. It was correlated with self-esteem and, more strongly, with communal narcissism, corroborating the notion of spiritual narcissism. Spiritual Superiority scores were consistently higher among energetically trained participants than mindfulness trainees and were associated with supernatural overconfidence and self-ascribed spiritual guidance. Our results illustrate that the self-enhancement motive is powerful and deeply ingrained so that it can hijack methods intended to transcend the ego and, instead, adopt them to its own service.

Key words: self-enhancement, contingent self-worth, narcissism, mindfulness, spirituality.
An Exploration of Spiritual Superiority: The Paradox of Self-Enhancement

Ego is able to convert anything to its own use, even spirituality.

Chögyam Trungpa, 1973, p. 7

An underlying theme in all spiritual training, from mindfulness and meditation to healing and reading auras, is that they reduce attachment to the personal self and ego needs such as social approval and success. An important part of the meaning of ‘spiritual’ is seeking to ‘transcend one’s current locus of centricity’ (Chandler, Holden, & Kolander, 1992), extending one’s perspective beyond the self. Ironically, however, spiritual training may in actuality evoke psychological motives and responses that are not enlightened at all. People may aim to become more successful, more respected or loved because of their spiritual development; even if these are not their initial motives, they may discover these benefits along the way. They may get a sense of excitement, or wisdom and serenity, and embrace the ideology that brought them this delight, hence becoming less open-minded towards other schools of thought. They may become ambitious in climbing the spiritual ladder, onto the next level, in much the same way as in academics, sports, or work. And they may feel superior to others who lack the spiritual wisdom they ascribe to themselves. In sum, the road to spiritual enlightenment may yield the exact same mundane distortions that are all too familiar in social psychology, such as self-enhancement, illusory superiority, closed-mindedness, and hedonism (clinging to positive experiences) under the guise of alleged ‘higher’ values.

It is possible, then, that the actual effects of spiritual training on self-enhancement stand in sharp contrast with the presumed diminishment of ego motives. Empirical research on this possibility is scant. The goal of our studies is to develop an instrument to assess spiritual superiority, so that more research is possible, and to explore how spiritual superiority relates to other psychological variables and to different types of spiritual training.

Our quest started by applying insights from social psychology to the work of the Tibetan Buddhist master Chögyam Trungpa (1973) on what he dubbed spiritual materialism. According to Trungpa (1973, p. 3), ‘there are numerous sidetracks which lead to a distorted, ego-centered version of spirituality; we can deceive ourselves into thinking we are developing spiritually when instead we are strengthening our egocentricity through spiritual techniques’. Spiritual materialism can undermine any spiritual training or any
religion. It is not inherent to the underlying philosophy; it is not caused by the philosophy itself but by what people make of it. ‘No matter what the practice or teaching, ego loves to wait in ambush to appropriate spirituality for its own survival and gain’ (Sakyong Mipham, in Trungpa, 1973, p. xii). The ‘genuine’ spiritual path is nothing more or less than becoming awake: directly in touch with reality as it is right here and now, including qualities we do not like. The very starting point that something must be fixed or changed, that one needs to get away from here to a better situation, merely obscures contact with this reality. And yet, spiritual trainings often carry the hedonistic promise of improving our impact, creativity, confidence, focus, listening skills, stress resistance, eating habits, or happiness altogether. Trainees may have the goal to alleviate suffering, become inspiring leaders, keep their heads cool amidst their busy day-to-day dynamics, cope with loss, ruminate less, sleep better – all motives that are materialistic in Trungpa’s book and stem from being displeased with present reality.

We focus on a sub-category of materialistic motives, the self-enhancement motive. This motive is deeply entrenched in the human mind and appears to operate automatically (e.g., Sedikides, Gaertner, & Cai, 2015). Spiritual training, in particular mindfulness training and meditation, can potentially reduce the tendency to distort reality in a self-flattering way and facilitate contact with reality as it is. Carlson (2013) described theoretical arguments and indirect evidence that mindfulness has this effect. We have not found any direct empirical demonstrations of this, but the related state of self-compassion does appear to reduce defensive responses to self-threat (Breines & Chen, 2012; Leary et al., 2007).

On the other hand, it is also conceivable that the ego unconsciously adopts spiritual attainments to serve its own glorification. Consider that the development of mindfulness skills – attention, awareness, focus on the presence, avoiding judgment – requires a high level of conscious awareness. In terms of dual-process models (e.g., Strack & Deutsch, 2004), these skills are part of the thoughtful, reflective, controlled system. Spiritual growth in general is typically aimed at increasing deliberate and contemplated thinking and de-automatising reflexive processes (e.g., Kang, Gruber, & Gray, 2013). Self-enhancement strategies, on the other hand, are well practiced and are guided by the impulsive, unintentional system. They are quick, effortless, automatic, and unconscious. According to Strack and Deutsch (2004), the impulsive system is always ‘on’, whereas the reflective system can only operate with sufficient motivation and cognitive resources. Thus, the chain is as strong as the weakest link: It would take only a moment of inattentiveness for the ego to kick in
and hijack any spiritual progress for its own purposes. For instance, if one has experienced a sense of spiritual
awakening, this could arouse pleasant feelings of superiority with regard to others who are not ‘enlightened’. If one is attentive and mindful, this need not obstruct the spiritual path: One can observe the responses of one’s ego as part of the reality of that moment, without identifying with them or getting carried away by them. But without this full awareness, spiritual development may in itself become a self-enhancement tool. Spiritually schooled individuals may feel superior to others and credit themselves for their spiritual growth.

Essentially, this mean the horse is put behind the cart.

Capturing Spiritual Superiority

The term spiritual narcissism has been used in several books (e.g., May, 1987) and papers, both scientific (Ferrer, 2009; Lahood, 2010) and journalistic (Colier, 2014; Lurie, 2011; Todd, 2015), but none of this work has empirically examined the relationship between spiritual development and self-enhancement. The primary goal of our studies was to develop a measure of subjective spiritual superiority and to examine its relationship with conceptually related variables such as self-esteem.

We assume that, like any form of self-enhancement, spiritual superiority manifests itself in better-than-average beliefs (Alicke & Govorun, 2005). Therefore, we developed a scale (Spiritual Superiority) reflecting superiority beliefs in the domain of spirituality. To generate the contents for the items, we made a list of qualities that spiritual trainings aim to enhance (e.g., being aware of higher powers, attentiveness, being in touch with one’s body). Furthermore, we interviewed several psychologists, spiritual trainers and lay people, and asked them to describe people who use spirituality as a self-enhancement tool. We translated these qualities to six items in the form of ‘I have X more than others’ (e.g., ‘I am more aware of what is between heaven and earth than most people’).¹

In addition, we created a scale that we expected to correlate with spiritual superiority: self-

¹We developed a separate set of items to assess a particular aspect of spiritual superiority: inordinate confidence in one’s intuitions and gut feelings (e.g., ‘I have blind faith in my intuition’). These were also included in the studies described here. However, we did not succeed in creating a homogeneous scale for this aspect, so we dropped it from the analyses reported here.
proclaimed *Spiritual Guidance*. This scale aimed to reflect the interpersonal and behavioural aspects of spiritual superiority, such as talking about one’s insights, trying to help others acquire the same wisdom, aspiring to be others’ spiritual coach or guru. While this behaviour may reflect genuinely prosocial motives, we assume it takes a sense of superiority to believe in one’s capacity to help and guide others.

Another variable of interest is contingency of self-worth (CSW) in the spiritual domain. Generally, self-esteem tends to depend on contingencies such as others’ approval, physical appearance, or academic competence (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). Individuals differ in their overall degree of CSW (Kernis, 2003), but also in the domains in which their self-esteem is staked. Ideally, spiritual training would promote self-compassion and unconditional, non-judgmental self-acceptance, thus reducing one’s internal ‘grading’ of how well one is doing which is typically associated with higher and lower self-esteem (Neff & Vonk, 2009; cf. Kernis, 2003, on optimal self-esteem). However, to the extent that people derive higher self-esteem from their spiritual practices, we expect their self-esteem to be more invested in this domain, so that their CSW in the spiritual realm is higher. Thus, while spiritual development should theoretically reduce CSW, we argue that spirituality may itself become a contingency of self-esteem. To examine this, we created a scale to measure CSW in the spiritual domain. We did this by using items from existing CSW scales and altering the content domain (e.g., the item ‘I feel better about myself when I know I’m doing well academically’, from the Academic Competence Contingency scale by Crocker et al., 2003, was adapted to: ‘I feel better about myself when I notice I develop myself spiritually’).

The present research

In three studies, we tested the reliability of our spiritual superiority scale and its relations with other variables. We hypothesized that spiritual superiority would be associated with our scale for self-proclaimed spiritual guidance. We also examined relationships with self-esteem. People with higher self-esteem have a stronger tendency to self-enhance (e.g., Brown, Collins, & Schmidt, 1988) and fall prey to illusory superiority (Hoorens, 1993), so we expected spiritual superiority to be associated with self-esteem (assessed in all three studies) and in particular with narcissism, which was assessed in study 3.

In study 1, we focused on participants who had engaged in some form of spiritual training; they were recruited via mindfulness schools and energetic training centres, which aim to train skills that classify as paranormal, such as reading auras and regressing to previous lives. We were interested in the difference
between these two types of training and in the effects of training duration. In spiritual practice, trainees may gradually learn to observe the workings of their ego (e.g., taking pride in their progress) and adopt a mental distance toward their self-enhancement needs. It is conceivable, then, that spiritual superiority is reduced as trainees become more advanced, especially if the phenomenon of spiritual narcissism is addressed during training. Because the typical mindfulness program includes explicit attention to ego-related drives and temptations (as part of the process of decentering; e.g., Shapiro et al., 2006), we expected lower spiritual superiority among participants from mindfulness schools than from other schools, especially after longer periods of training.

In study 1, we also assessed contingency of self-worth. In addition to our new scale for CSW in the spiritual domain, we included two well-established domains of contingency: others’ approval and competence (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). We selected these because they reflect two important basic dimensions: likeability and competence (e.g., Abele & Wojciszke, 2007; Abele, Ellemers, Fiske, Koch, & Yzerbyt, 2020; Vonk, 1999).

Two other variables in study 1 were related to the two categories of participants we recruited. Because part of our sample consisted of participants from mindfulness schools, we assessed trait mindfulness (Brown & Ryan, 2003). Theoretically, one would predict that a genuinely high level of mindfulness is associated with lower spiritual superiority. However, mindfulness measures are based on self-report and, hence, can be affected by the same ego-related motives as spiritual superiority: If one’s self-esteem depends on one’s spiritual ‘level’, one will be motivated to score high on mindfulness. Indeed, self-reports of mindfulness may strongly be biased by the desires of respondents, and there is no evidence that they correspond with actual behaviours or competencies (Grossman, 2011; Park, Reilly-Spong & Gross, 2013). We therefore expected a positive correlation between trait mindfulness scores and spiritual superiority.

The other part of the sample was recruited via energetic schools. With this group in mind, we

\[\text{In Crocker et al.’s measure, this scale is called Academic Performance. Because our participants are not college students, we adapted the items to reflect competence in school more generally, e.g. my academic performance became my progress at school, doing well academically became doing well in my course/education.}\]
developed a *Supernatural Overconfidence* scale, assessing belief in one’s own paranormal powers (i.e., extrasensory perception and psychokinetic skills). We expected this scale to be correlated with spiritual superiority, because spirituality is in part related to belief in supernatural powers (Lindeman, Blomqvist, & Takada, 2012; Kennedy, 2004). Hence, illusory superiority about one’s own standing in the spiritual domain should be associated with illusory beliefs about one’s supernatural abilities.

Note that the Mindfulness and Supernatural Overconfidence scales may potentially help disentangle actual superiority from subjective superiority: If anything, mindfulness trainees should rate higher on mindfulness because they were trained at these particular skills; vice versa, the same applies to supernatural overconfidence for energetic trainees (if we assume, for argument’s sake, that supernatural skills exist).

In studies 2 and 3, participants were recruited via a popular psychology magazine with a broad audience interested in psychological and spiritual development. The goal of these studies was to replicate our findings and to further explore differences between groups with different training backgrounds, including a ‘blank’ comparison group of participants without any spiritual training.

**Study 1**

### Method

#### Measures

We describe the questionnaires in the order in which they were administered.\(^3\) Unless noted otherwise, 7-point response scales were used.

**Spiritual Superiority, Spiritual Guidance, and Supernatural Overconfidence.** Appendix A presents the items of the Spiritual Superiority scale, reflecting social comparisons about aspects of spiritual awareness, e.g., ‘I am more in touch with my senses than most others’. These 6 items were mixed with 6 Spiritual Guidance items, presented in Appendix B (e.g., ‘I help others whenever possible on their path to greater wisdom and insight’), into a single questionnaire titled ‘Study and life experience’. It was clarified that items about participants’ school referred to their spiritual school. The items we developed to assess faith in one’s own supernatural powers (e.g., ‘I can influence the world around me with my thoughts’) are in Appendix C.

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\(^3\)Study 1 included several other measures not reported here, such as the Big Five and Social Desirability, the results of which are described in the supplementary materials.
Contingent Self-Worth. We selected two scales from Crocker et al. (2003) that we had already used in an earlier study (Vonk, Radstaak, De Heus, & Jolij, 2017) to measure two domains of contingency, competence (5 items, e.g., ‘Doing well in school gives me a sense of self-respect’) and approval from others (5 items, e.g., ‘My self-esteem depends on the opinions others hold of me’). We developed a new scale with 5 spiritual growth contingencies: ‘My self-respect has grown because of my spiritual development’; ‘How I think about myself is unrelated to my spiritual growth’ (reverse-coded); ‘When I notice I develop myself spiritually, I feel better about myself’; ‘My faith in myself goes up when I acquire more spiritual wisdom’; ‘When I gain new spiritual insights, this increases my self-worth’. The 15 items were mixed.

Self-Esteem. To assess global self-esteem, we used three items ($a = .92$) from a previous study (Vonk et al., 2017): ‘I am satisfied with myself’; ‘I feel bad about myself’ (reverse-coded); and ‘I have a positive view of myself’.

Mindfulness. Mindfulness was measured with The Five-Facet Mindfulness Questionnaire (FFMQ) – Short Form (Bohlmeijer, Ten Klooster, Fledderus, Veehof, & Baer, 2011). We used only the composite score of the 24 items. Participants rated the extent to which each statement was true of them (e.g., ‘I watch my feelings without getting carried away by them’) on 5-point scales from ‘never or seldom true’ to ‘very often or always true’.

Participants and Procedure

The N in this study, as in the other studies, was determined by the number of participants we were able to acquire. To approach participants engaged in some form of spiritual development, we sent emails to spiritual centres and schools, found via a Google search of mindfulness training (108 schools) and energetic training (116). Of these, 26 mindfulness and 39 energetic centres agreed to send the internet link of our survey to their students with our accompanying letter (via email, a newsletter, or social media, depending on the preference of the contact person). Trainees were told they could afterwards receive their personal test results and a research report. On the introduction screen, participants were told the study consisted of questions about their spiritual development and life experience, the word ‘spiritual’ being used in a broad sense. After the measures described above, they answered questions about sex, age, education, religion, and professional and spiritual education, including duration of their training so far.

Four participants were excluded because they selected the same response option on all items in some
questionnaires. One non-native speaker was excluded. Of the 533 participants retained, 395 also completed the demographic questions at the end. They were 96 males and 299 females between 20 to 80 years ($M = 50.54$, $SD = 11.80$).

While the N was based on the number of participants we were able to recruit, we did perform a sensitivity analysis to determine the size of Pearson’s $r$ we could reliably detect in this sample. With $N = 533$, power set at 80% and alpha at .05, we would be able demonstrate correlations of .12 and higher. Our $N$ in studies 2 and 3 was much higher, so these have higher sensitivity.

Results

Internal consistency of scales

A principal components analysis on the 6 Spiritual Superiority items yielded one factor with an Eigen value above 1 (3.41) explaining 56.88% of the variance. Cronbach’s alpha was .84.

The 6 Spiritual Guidance items also yielded one factor with an Eigen value above 1 (3.18), explaining 52.97% of the variance. Cronbach’s $\alpha = .82$.

The 9 items of Supernatural Overconfidence yielded 1 factor with an Eigen value above 1 (4.85) explaining 53.89% of the variance. The scale had a reliability of $\alpha = .89$.

Appendix A, B, and C present means, standard deviations, and factor loadings of these three scales.

A principal components analysis on the 15 contingency items showed three factors with Eigen values above 1 (4.54, 2.73, and 1.38). The pattern of loadings of the 3-factor solution reflected the three scales as intended: Factor 1 represented competence contingency, with high loadings for ‘Doing well in my course/education gives me a sense of self-respect’ and ‘I feel better about myself when I know I am doing well in my course/education’. We dropped the negatively worded item ‘My opinion about myself isn’t tied to how well I do in my course/education’ because it had a low loading on this factor (-.14). Factor 2 reflected Others’ Approval, with highest loadings for ‘What others think of me has no effect on what I think about myself’ and ‘I don’t care if other people have a negative opinion about me’ (negative loading). Our new scale Spiritual Contingency was represented by Factor 3, with the items ‘My faith in myself increases when I acquire more

4We thank Julian Quandt for his expert help in the sensitivity analysis.
spiritual wisdom’ (.80), ‘When I notice I develop myself spiritually, I feel better about myself’ (.72), ‘When I
gain new spiritual insights, this increases my self-worth’ (.70), and ‘My self-respect has grown because of my
spiritual development’ (.59). The fifth item, ‘How I think about myself is unrelated to my spiritual growth’,
was discarded because of its low loading (~.33).

Table 1 presents Cronbach’s alphas and Pearson correlations among the Contingency scales and Self-
Esteem. Note that the internal consistency of our new subscale Spiritual Contingency is good (α = .83 with 4
items). This scale is positively related to competence contingency, as expected, but not to others’ approval.
Note that competence and especially approval contingency are negatively related to self-esteem, which is a
typical result in studies on contingency of self-worth (Vonk et al., 2017). Our new scale, on the other hand,
has a low and nonsignificant correlation with self-esteem. We return to this in the Discussion.

Correlations

To examine the convergent and divergent validity of our scales, we computed Pearson correlations of
spiritual superiority with self-esteem, the three contingency scales, mindfulness (α = .89), and the new scales
Spiritual Guidance and Supernatural Overconfidence. They are presented in Table 2.

As expected, self-esteem is associated with spiritual superiority, yet the correlation is moderate
indicating that these are distinct concepts. The negative correlation of spiritual superiority with the
contingency others’ approval can largely be explained by the latter’s negative correlation with self-esteem (cf.
Table 1): Partiailling out self-esteem, this correlation is ~.07 (ns). Spiritual contingency (column 4) is
positively associated with self-superiority.

Both mindfulness, supernatural overconfidence, and spiritual guidance are positively correlated with
spiritual superiority, as we expected.

Relations with type of training

Responses to the question which kind of spiritual training or education participants were currently
following were categorized into three training groups:

1. Mindfulness, mindfulness-based stress reduction, meditation (N = 115);
2. Energetic therapist/trainer, reading/healing aura (N = 94);
3. Miscellaneous (trainings mentioned by fewer than 10 participants, e.g., haptotherapy, reiki, sjamism,
shiatsu; ‘other’; N = 138).
We expected participants from mindfulness schools to rate lower on spiritual superiority, compared
with the other groups. In addition to spiritual superiority, we also included spiritual guidance, supernatural
overconfidence, and mindfulness as dependent variables in a multivariate analysis of variance. The
multivariate effect was significant (Wilks' Lambda = .75, $F(8, 682) = 12.91$, $p < .001$, $\eta^2 = .13$). Table 3
presents means, standard deviations, and univariate $F$ tests. The mindfulness group rated significantly lower
than the energetic group on all measures, even on the mindfulness scale. The Miscellaneous group was in
between, but only differed significantly from the energetic group on spiritual superiority.

We examined if the lower scores in the mindfulness group were related to how long participants had
been engaged in their current training program and, hence, had possibly been trained at noticing their ego-
related motives. Entering duration of training as a covariate did not alter any of the effects of Training.
Correlational analyses did not reveal any significant relations of duration with the superiority scales in any of
the training groups. Only mindfulness scores were higher with longer training duration in the mindfulness
group ($r = .33$, $p = .005$).

**Discussion**

We aimed to develop a measure that captures spiritual superiority as a form of self-enhancement.
Our 6-item scale appears quite adequate, in terms of both internal consistency and discriminant validity with
respect to related variables. Correlations with self-esteem and mindfulness were in the expected direction
and were moderate, demonstrating the distinctiveness of the Spiritual Superiority scale. In addition, we
developed three other new scales.

First, supernatural overconfidence, reflecting self-ascribed abilities in the paranormal domain, was
correlated with spiritual superiority as predicted.

Second, self-ascribed spiritual guidance can be regarded as an interpersonal effect of spiritual
superiority, because one needs to feel more spiritually advanced than others in order to guide them. The high
correlation of this scale with spiritual superiority (.68) corroborates this idea.

Third, in addition to already established domains of contingency of self-worth, such as performance
and social approval, we also identified spirituality as a contingency domain. This particular contingency was
related to spiritual superiority, as predicted. Our results also showed a relationship of spiritual contingency
with performance contingency, not with others’ approval. This could suggest that spiritual development is perceived as a performance-related accomplishment, but note that we adapted the items in our Performance Contingency scale to the spiritual schools that participants were attending, because our participants were not college students: The items were not about academic performance (as in Crocker et al., 2003) or performance in domains outside of school (as in Vonk & Smit, 2012). So, the Performance and Spiritual Contingency scales were in fact about the same content domain, one focusing on primarily external contingencies related to results at school (e.g., ‘Doing well in school gives me a sense of self-respect’), the other on internal standards about the process (e.g., ‘When I gain new spiritual insights, this increases my self-worth’). This shared content can explain their correlation. Note that these two contingency scales had divergent correlations with self-esteem: The correlation was negative for performance contingency, as is typically the case with external contingencies of self-worth, but it was low and nonsignificant for spiritual contingency. We return to this in the General Discussion.

This study was conducted with participants who may fall prey to spiritual superiority because of their spiritual training. Our results suggest that, as predicted, this was particularly so for energetic trainees, who rated higher than mindfulness trainees on all superiority-related scales. The largest difference emerged for supernatural overconfidence, which makes sense because energetic training is aimed at the development of supernatural capacities. This will attract students who already believe they have talents in this area, while the program itself will further enhance their confidence in that domain; unlike most other skills, which can be established by objective performance standards, it is highly unlikely that during the energetic program, trainees discover they were not paranormally gifted after all. Interestingly, we obtained similar differences between training groups on the Spiritual Superiority scale which encompasses abilities that are at least as important in mindfulness training, such as being more in touch with one’s senses and with one’s body than others – skills that are explicitly trained during mindfulness and meditation, not in energetic training, and at which people in fact get demonstrably better after meditation (Fox et al., 2012). In these domains too, and even on the mindfulness scale, the energetic trainees manifested more subjective superiority. This suggests that the differences reflect higher self-enhancement among energetic trainees and not actual superiority.

We expected this, assuming that mindfulness training involves developing more awareness and vigilance regarding the self-enhancement motive. But for this reason, we also expected lower scores on
spiritual superiority among more advanced mindfulness trainees, yet we did not find any effects of training duration other than higher mindfulness scores. This could be due to methodological limitations. For instance, our simple measure of duration of the training may be too crude, because there are huge varieties of training intensity and level among these participants, some involving going to school each day and others only an evening once a week. But it is also possible that the differences between the groups do not result from training effects at all but from a self-selection effect, and that energetic training tends to attract more individuals inclined towards spiritual self-enhancement.

**Study 2**

Based on study 1, we cannot tell whether mindfulness trainees are higher on spiritual superiority than people without such training (who, presumably, hardly use spirituality as a self-enhancement tool), or lower due to being more mindful regarding their ego concerns. In our second study, therefore, we used a participant sample without spiritual training. Because many questions in our scales would seem silly to people with no interest in spirituality or personal growth, we approached participants who do have this interest without necessarily engaging in spiritual training programs: readers of a popular magazine about psychology and personal growth. The study had two goals: to replicate the internal consistency and external relations of our Spiritual Superiority scale, and to test how spiritually untrained participants compare with mindfulness and energetic trainees.

**Method**

We selected the most important measures from study 1. First, spiritual superiority and spiritual guidance were assessed. Subsequently, the 3-item Self-Esteem scale was administered, followed by our Supernatural Overconfidence scale. Finally, participants indicated their gender, age, religion, education, and if they had ever followed a spiritual course or training. Five options were presented (based on the most frequent open-ended responses given in study 1): mindfulness, meditation (both categorized as mindfulness), energetic training, aura reading/healing (both categorized as energetic), or ‘other, namely: ...’. It was possible to select more than one.

The link to our questionnaire was distributed via the e-mail newsletter and Facebook page of the Dutch magazine *Psychologie Magazine* (cf. *Psychology Today*). Participants were told that the study was about self-development and would take about 15 minutes to complete. As an incentive to participate, they
could afterwards draw a lottery ticket with which they could win monetary prizes of 50 (one prize) or 25 Euros (three prizes). As in study 1, they could later receive their personal test scores.

In the introduction to the study, participants were told that the questionnaires were about 'your life experience, personal development, and spiritual development – with “spiritual” having a broad and general meaning, including higher personal values, development towards authenticity, connectedness, compassion, and mindfulness'. We selected these terms assuming they would appeal to this audience.

And so they did: After one day, we had 2223 respondents and we closed the study. They were 1960 females and 150 males (113 participants did not answer this question because they did not complete the study up to the end) between 15 to 82 years old ($M = 40.89$, $SD = 12.15$).

**Results**

**Internal consistency and correlations**

Cronbach’s alphas and correlations are presented in Table 4. Overall, the intercorrelations were somewhat lower than in study 1, but they were again within the range where we expected them, revealing significant positive relations of Spiritual Superiority with the other scales that are also low enough to warrant their distinction.

**Relations with training**

861 participants indicated they had not followed any training or education of this sort; 791 had been or were engaged in mindfulness or meditation training; 75 in energetic training (or aura healing/reading or both); 230 in both energetic and mindfulness training; and 189 in other kinds of spiritual training. These trainings are not necessarily similar to the education of the participants in study 1; for instance, it may have concerned short mindfulness trainings in an evening class or via a smartphone app, and it may have been some time ago. Therefore, we created five groups:

1. Energetic group study 1: $N = 94$;
2. Mindfulness group study 1: $N = 115$;
3. Mindfulness group study 2: $N = 791$;
4. Mindfulness plus energetic group study 2: $N = 305$; we collapsed the energetic-only and energetic-plus-mindfulness respondents, because (a) the frequencies of each were...
comparatively low, and (b) we reasoned that these participants could be classified as ‘spiritual
shoppers’;

5. No-training group study 2: \( N = 861 \).

We dropped the miscellaneous groups from both studies because it is more heterogeneous.

These groups were entered in a multivariate analysis of variance with spiritual superiority, spiritual
guidance, and supernatural overconfidence as dependent variables. The multivariate effect was significant
(Wilks’ Lambda = .79, \( F(12, 5712.47) = 43.91, p < .001, \eta^2 = .08 \)). Means, standard deviations, univariate \( F \)
tests and contrast tests are in the supplementary materials (Table B). Figure 1 presents the results in a graph.

On all three measures, the No-training group rated lowest. This group differed significantly from all other
groups on all measures, with the exception of the study 1 mindfulness group on supernatural overconfidence.
The study 1 energetic group showed the highest scores, differing significantly from all others on all measures,
except for the study 2 mindfulness plus energetic group on supernatural overconfidence.

Ordered from low to high, as in Figure 1, the general pattern is a gradual increase from the no-
training group at one end to the energetic study 1 group at the other, with mindfulness trainees rating lower
than energetic trainees, and study 2 participants rating lower than study 1 participants. The only exception to
this general pattern is the high score on supernatural overconfidence in the mindfulness plus energetic study
2 group.

Study 3

Studies 1 and 2 showed that spiritual superiority is associated with self-esteem, and suggest that it is
in part a reflection of an illusory better-than-average effect, especially among energetic trainees. Thus, the
term spiritual narcissism (as used by e.g., Lahood, 2010, Lurie, 2011, and Todd, 2015) seems appropriate.
However, these results do not yet demonstrate a relationship with narcissism. In study 3, we tested the
hypothesis that spiritual superiority is related to narcissism, more strongly than to self-esteem. We did not

\footnote{This assumption was corroborated in a preliminary analysis in which we compared participants with
mindfulness training, energetic training, or both: On all measures, the latter differed significantly from the
mindfulness group and not from the energetic group.}
use an agentic narcissism scale because these scales focus on tendencies that are typically disapproved of by people engaged in spiritual development, such as seeing oneself as more special and more competent than others, and as more deserving of privileges. Instead, we used a scale for communal narcissism (Gebauer, Sedikides, Verplanken, & Maio, 2012; Gebauer & Sedikides, 2018), which focuses on the social domain and one's meaning to others, e.g., 'I have a very positive influence on others' and 'I am generally the most understanding person'.

**Method**

**Participants**

Participants were recruited via different routes. In all cases, as in study 2, the incentive to participate was a lottery with gift certificates of €25,- to €50,- and the possibility to receive their personal test results afterwards if they wanted to. First, we e-mailed 497 participants who had intended to participate in study 2 after we had closed it and who left their mail address. This yielded 320 participants. Second, we acquired 72 participants by contacting 80 students who had participated in a lab experiment and indicated they were available for future research; this was an experiment on mindfulness which did not include any measures used in the present study. Third, 23 other participants were found via a Vipassana school that mentioned the study in their newsletter. Finally, we recruited 860 participants via a Facebook page about psychology. Three participants were discarded: one who was 15 years old, one who completed the study in two minutes, and one who gave long series of the same response on some questionnaires. Of the 965 participants retained, 858 completed the background questions at the end. They were 96 males and 762 females with divergent ages (19-79, \( M = 45.58, SD = 11.13 \)) and training backgrounds.

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6Another goal of study 3 was to develop a scale for overconfidence in one's intuition, to complement supernatural overconfidence, because this could be more generally applicable regardless of participants' beliefs and training history the supernatural realm. Because we did not succeed at this — our scale appeared to involve multiple dimensions — we do not include it here and focus on the narcissism scale and the replication results from study 3. Details about the Intuition Overconfidence scale and related scales administered in this study are described in the supplementary materials.
In chronological order, participants completed scales for spiritual superiority and spiritual guidance, an Intuition Overconfidence scale and several existing humility- and overconfidence-related scales (see Footnote 6), the Cognitive Reflection Test, Supernatural Overconfidence, and a short version (7 items) of the Communal Narcissism scale (Gebauer, 2017 November 8, personal communication) which was mixed with the 3-item Self-Esteem scale used in the previous studies. Finally, as in the previous studies, participants indicated their gender, age, education, religion, and which spiritual courses or trainings they had followed or were following.

**Results**

As predicted, spiritual superiority (α = .79) was related to narcissism (α = .82), r = .47, more strongly than to self-esteem (α = .87), r = .17. The difference between these correlations (Lee & Preacher, 2013) was significant, z(862) = 8.34, p < .001. A similar difference was also obtained for the scales spiritual guidance (α = .77), r = .45 vs. r = .24, z(862) = 5.86, p < .001, and supernatural overconfidence (α = .89) r = .39 vs. r = .12, z(862) = 7.26, p < .001.

To replicate the differences between training groups, we followed the same classification criteria as in study 2. The present sample had 330 participants with no spiritual training, 350 who had attended or were attending mindfulness training, and 121 with energetic training or both. Again, a multivariate analysis of variance on spiritual superiority, spiritual guidance, and supernatural overconfidence yielded a significant multivariate effect (Wilks’ Lambda = .81, F(8, 1590) = 22.54, p < .001, η² = .10). Univariate tests were significant for all variables, with lowest scores for the no-training group and highest for the energetic group.

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7The final questionnaire in this study consisted of two social desirability scales mixed with 5 items that we created in an effort to assess spiritual desirability: ‘Due to my spiritual development, I no longer have emotions like greed, fear or envy’; ‘My ‘ego’ sometimes bothers me, for instance my need for recognition or respect’; ‘I never make judgments about others’; ‘I always feel harmony and calm, even at difficult moments’; and ‘My thoughts are always in the here and now’. None of the correlations in this study were meaningfully affected by partialling out these variables, so they are not discussed here (see Table D in Supplementary Materials).
Post-hoc contrasts showed significant \( p < .005 \) after Bonferroni correction) differences between all groups on all variables. In the supplementary materials, we report all variables as a function of participants’ training (Table D).

**General Discussion**

In a society where exploring our inner lives and developing our unique individual qualities have become common practice, there is a profusion of spiritual education programs, from faddish otherworldly new-age to scientifically corroborated mindfulness programs. Just as with any hype embraced by so many, this carries the obvious risks of misuse, misinterpretation, and shallowness. Indeed, the benefits of mindfulness have now literally turned materialistic, generating a billion-dollar industry (Purser, 2019; Scott, 2017; Wieczner, 2016).

Psychological materialism is proliferating as well, due to the widespread ‘desire for immediate gratification among individuals for whom feeling good has become the prime goal in life’ (Wink, Dillon, & Fay, 2005). In the present studies, we focused on a main subcategory of the hedonic principle: feeling good by bolstering one’s ego. We have argued, along with Chögyam Trungpa (1973), that all varieties of spiritual quest can be exploited by people’s persistent motive towards self-enhancement. As a result, the spiritual seeker may acquire the desired state of mind in a hedonic sense, but is bound to miss the spiritual boat entirely. This not only applies to the spiritual practices examined in our study. For instance, from a literature review of the relationship between grandiose narcissism and aspects of religiosity, Hermann and Fuller (2018) concluded that grandiose narcissism is associated with self-serving spiritual beliefs and with reduced positive effects of spiritual practices such as meditation.

In our studies, we focused on currently popular, non-religious spiritual approaches. In spite of the abundance of mindfulness research, we found no empirical research on the pitfalls of the ‘ego trap’. There is a myriad of instruments to assess spirituality and related constructs (MacDonald et al., 1995), but none address this aspect which can have profound consequences, both interpersonally (e.g., evoking annoyance) and intrapersonally (enhancing self-esteem while impeding true spirituality). As a guide in our exploration, we relied on social-psychological research on self-enhancement, assuming that even spirituality lends itself to self-superiority – the ‘I’m enlightened and you’re not’-syndrome (Cashwell, Bentley, & Yarborough, 2007) – and can be confiscated by one’s ego just like money, status, attractiveness, social approval, or performance.

To begin to examine this paradoxical phenomenon, we developed a scale to measure individual
differences in subjective spiritual superiority. Our scale is a relatively straightforward measure of the better-than-average effect (Alicke & Govorun, 2005) in the spiritual domain, with items containing explicit comparisons with others. This self-ascribed superiority stands in blatant contradiction with spiritual values such as humility and common humanity (cf. Neff, 2003). In addition, we developed three other scales that tap into related psychological phenomena: Supernatural Overconfidence, Spiritual Contingency (both discussed further below), and Spiritual Guidance. The latter captures the interpersonal consequences of spiritual superiority: the motive and self-ascribed ability to be others' spiritual guide, thereby implicitly assuming superiority over others. Note that this motive can be involved in many types of training that people may enter with the goal of helping others, and it may be genuinely prosocial. Nevertheless, it is devoid of a more enlightened awareness that other people learn from life in their own way, at their own pace, and by their own experiences.

**Self-esteem and contingency of self-worth**

In three studies, partly among participants of spiritual training programs, partly among untrained participants, we found that our scales have good internal consistency as well as convergent and discriminant validity. As expected, spiritual superiority shows moderately positive correlations with self-esteem. In studies 2 and 3, involving more participants with no or only incidental spiritual training, this correlation was somewhat lower than in study 1 which had only participants attending spiritual schools. Presumably, the former tend to invest their self-worth in other domains (and feel superior in other domains, such as attractiveness, morality, or ability). Supporting this explanation, additional analyses revealed that the correlation of spiritual superiority with self-esteem in the no-training groups of studies 2 and 3 were generally lower than in the trained groups (Table E in supplementary materials).

As shown in study 1, spiritual superiority is also associated with investing one's self-worth in spiritual development: contingency of self-worth in the spiritual domain. Our short scale for this variable provides an addition to existing scales for domains of CSW. These include a variety of domains, ranging from contingencies that are largely tied to external confirmation, such as others' approval (Crocker et al., 2003) and financial success (Park, Ward, & Naragon-Gainey, 2017) to contingencies tied to internal standards, such as virtue (Crocker et al., 2003), self-congruence and personal growth (Vonk & Smit, 2012). External contingencies tend to be more vulnerable and typically correlate negatively with self-esteem; this is also what
we found for performance and, more strongly, others’ approval (Table 1). Interestingly, the correlation of
spiritual contingency with self-esteem was low and nonsignificant. One might argue that investing self-worth
in spiritual development is similar to what we (Vonk & Smit, 2012) have dubbed intrinsic contingency, where
self-esteem depends on self-congruency and self-actualization. This contingency domain is assessed by items
indicating that one’s self-esteem increases by, for instance, ‘discovering a new side of myself’ or ‘giving
attention to my inner feelings’, and decreases by ’going against my conscience’ or ’presenting myself as
different from how I am’. Reflecting ‘typical intrinsic, humanistic motivations: authenticity and personal
growth’ (Vonk & Smit, 2012, p. 183), this contingency is more similar to spiritual contingency than the
external contingencies mostly studied in the field of CSW. Just as intrinsic contingency, spiritual contingency
may make self-esteem less fragile and less vulnerable to external threats. This would explain why its
correlation with self-esteem is not negative, as it is for external contingencies.

In this regard, spiritual contingency could be viewed as a relatively psychologically healthy
investment of self-worth in intrinsically motivated and largely controllable resources. On the other hand, the
data from study 1 show that this contingency was also correlated with spiritual superiority as well as with
supernatural overconfidence ($r = .28$) and spiritual guidance ($r = .33$). This suggests that staking one’s self-
worth in spiritual progress is associated with the usual self-serving distortions, thus producing spiritual self-
enhancement.

As people spend time and energy on spiritual training, it makes sense that their qualities in this
domain become more self-central and, as a consequence, contribute more to their self-esteem. In recent
studies (which we read after conducting ours), Gebauer and his colleagues demonstrated exactly this for the
effect of yoga and meditation practices (Gebauer et al., 2018) and of Christian religiosity (Gebauer, Sedikides,
& Schrade, 2017). According to their argument, practicing any skill makes it more self-central, which in turns
breeds self-enhancement in that domain. Our studies illustrate that this also applies to spiritual training. We
did not assess self-centrality, but it seems reasonable to assume that self-central qualities are also the
qualities that are most accessible to people and most strongly affect their self-worth, thus developing into
contingencies.

Having a high contingency in a domain implies that self-esteem can increase or abate due to success
or failure in that domain (Vonk & Smit, 2012). In some domains, failure is less likely (e.g., God’s love),
rendering self-esteem relatively invulnerable compared with contingencies such as social approval or attractiveness (Crocker et al., 2003). Like religiosity, spirituality is a domain that seems like a safe and secure investment for self-worth: One’s spiritual attainments allow lots of room for wishful thinking, thus easily lending themselves to the grip of the self-enhancement motive. Thus, we argue it is precisely the relatively autonomous, intrinsic nature of the spiritual realm, being elusive to external objective standards, that makes it such a suitable domain for illusory beliefs about one’s superiority.

**Narcissism**

The phenomenon of spiritual narcissism has been described, but the relationship between spiritual superiority and narcissism was not empirically examined until now. In study 3, we included the Communal Narcissism scale. We selected this particular scale to avoid socially desirable responding by spiritually trained participants, who are usually wary of self-admiration or entitlement because these are seen as socially undesirable in spiritual circles. As predicted, our Spiritual Superiority scale was correlated with narcissism, significantly more strongly than with self-esteem. This is the first empirical demonstration of the interconnection between the two, corroborating the notion of spiritual narcissism.

Our correlational results obviously do not indicate the direction of this relation. We speculate it works in both directions. On the one hand, spirituality can be seized as a way to bolster the self, allowing one to see the self as very special. Considering that spirituality can be a contingency of self-worth, and that perceived progress in this domain is more easily accomplished than in domains with hard objective outcomes, it is a quite reliable way of boosting feelings of superiority. This may be especially true for energetic training, where self-serving inferences can easily override any objective evidence of one’s accomplishments. In study 3, narcissism was in fact substantially higher in the energetic group (Table D in supplementary materials).

Conversely, spiritual training programs may attract people with strong personal development motives, related to our western narcissistic culture. Many people now engage in their own privatized search for meaning; they do not need to humbly subordinate themselves to a community, a greater philosophy, or God, as in traditional religions. In tally with the current ‘me’-culture, they develop their own personal religion. This self-importance, and the extensive exploration of one’s personal thoughts and feelings, may be particularly appealing to both overt and covert narcissists (Vitz & Modesti, 1993; Wink, Dillon & Fay, 2005).
Supernatural overconfidence and illusory superiority

There are several scales assessing paranormal and supernatural beliefs (Lindeman & Svedholm, 2012), but none assessing the subjective sense of one’s own superiority in this area. Paranormal beliefs are an element in many spiritual and religious systems, so overconfidence in this realm may be regarded as a particular expression of spiritual self-enhancement – one that people can only engage in to the extent that they believe in paranormal phenomena (e.g., aura healing or regression to previous lives, in case of energetic training). In spite of Bem’s (2011) efforts to the contrary, claims about such abilities are well outside the borders of established science. As expected, participants from energetic schools, trained in this realm, rated substantially higher on supernatural overconfidence than any other group in all three studies. This difference occurred for all participants who had taken some form of energetic training, versus all those who had not. This was to be expected because energetic training is supposed to improve one’s supernatural abilities; and, conversely, people who see themselves as talented in this domain are probably more likely to start energetic training.

Participants who had followed (studies 2 and 3) or were currently following (study 1) energetic training, also rated higher on spiritual superiority as well as spiritual guidance, compared with mindfulness trainees. Unlike the Supernatural Overconfidence scale, these scales do not include any qualities that are educated more thoroughly in energetic than in mindfulness programs. So, it is unlikely that the energetic trainees are in fact superior in this respect. Energetic trainees even rated higher on mindfulness and other abilities that are specifically trained in mindfulness schools (being in touch with one’s senses and bodily experiences), not in energetic schools. Thus, we may assume that the superiority of energetic trainees is illusory.

As argued in the Introduction, it is possible that mindfulness trainees are more aware of their self-serving motives and, concomitantly, are less likely to get entrapped into the delights of spiritual self-enhancement, thanks to the focus on decentering in typical mindfulness programs. But a self-selection effect could also explain the difference, or part of it. It is conceivable that people attracted to energetic training already have stronger ego needs than mindfulness trainees, or a lower ability to observe and disengage from these needs.

True Enlightenment
Regardless of the underlying causal path, our data indicate that spiritual self-enhancement exists, at least in the energetic group. For mindfulness trainees, the picture is less clear. Even though they rated higher than untrained participants on self-superiority and guidance, this does not necessarily reflect illusory superiority: They may actually have superior skills in these domains. Being a self-report measure, our spiritual superiority scale is as ambiguous as other self-enhancement instruments that do not include objective external criteria because they may in part reflect true superiority. However, the substantial correlation we found with communal narcissism in study 3 suggests that the scale reflects at least in part a subjective component: Communal narcissism has been shown to be uncorrelated with objective prosociality, indicating that the self-ascribed superiority is in fact subjective (Nehrlich, Gebauer, Sedikides, & Schoel, 2019).

Apart from specific skills such as being in touch with one’s bodily signals, there is no objective measure to assess a person’s ‘true’ spirituality (Chandler, Holden, & Kolander, 1992) or mindfulness (Grossman, 2011): We must rely on self-report measures, which probably fail at capturing the complexity and depth of the spiritual process (Cashwell, Glosoff, & Hammond, 2010). Most likely, they are all hindered by the very self-enhancement distortions under consideration here. A better measure would be based on how people respond to unwelcome events, for instance, self-threat. Theoretically, truly mindful, enlightened persons should respond differently to ego threat (Carlson, 2013), but in our lab we have found no reliable effects of trait or state mindfulness on defensive responding to negative feedback (Jansen, 2015). Thus, this issue awaits more objective measures of mindfulness and spirituality.

The question is whether a truly enlightened person would even participate in our studies. Would such a person be interested in or even capable of answering all these ‘me’-questions? Perhaps our studies were possible only thanks to participants whose egos were still big enough to want to engage. At some point along the genuine spiritual path, this motive may vanish. In Trungpa’s (1973) words, ‘enlightenment is the ego’s ultimate disappointment’.

Conclusion

The phenomenon of spiritual superiority is widely recognized, both by authors who have written

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*We thank an anonymous reviewer for this suggestion.*
about it and by lay people who have felt the condescension of spiritually ‘enlightened’ others. At the same
time, it has not yet been empirically studied before. We developed a measure of spiritual superiority, along
with scales for self-proclaimed spiritual guidance, supernatural overconfidence, and spiritual contingency of
self-worth. We have demonstrated their reliability and we have presented initial findings on correlations with
other variables and differences between types of spiritual training, corroborating the validity of our scales.

Our results and our theoretical analysis can stimulate further research into this phenomenon. In the applied
domain, this could reveal more insights into the effects of spiritual training, and possibly the conditions and
personality characteristics that facilitate genuine spiritual growth. More importantly, our results reveal the
sovereignty and tenacity of the self-enhancement motive, showing its operation in a context designed to quiet
the ego. This can be understood in terms of dual process models, assuming that self-enhancement is an
automatic tendency whereas mindful awareness requires thoughtful processes. Our results thus extend the
current body of knowledge on self-enhancement, by including a domain in which self-superiority might be
least expected.
References


Table 1. Cronbach’s alphas and Pearson Correlations for Contingency Scales and Self-Esteem in Study 1.

<table>
<thead>
<tr>
<th>Measure</th>
<th>α</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Competence Contingency</td>
<td>.81</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Others’ Approval</td>
<td>.79</td>
<td>.41*</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Spiritual Contingency</td>
<td>.83</td>
<td>.46*</td>
<td>.07</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4 Self-Esteem</td>
<td>.86</td>
<td>-.26*</td>
<td>-.54*</td>
<td>.09</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: * = p<.01 (2-tailed)
Table 2. Pearson correlations of Spiritual Superiority with Self-Esteem, Contingency scales, Mindfulness, Spiritual Guidance, and Supernatural Overconfidence in Study 1.

<table>
<thead>
<tr>
<th>Spiritual Superiority</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Self-Esteem</td>
<td>.38*</td>
</tr>
<tr>
<td>Other’s Approval Contingency</td>
<td>-.25*</td>
</tr>
<tr>
<td>Competence Contingency</td>
<td>.06</td>
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<tr>
<td>Spiritual Contingency</td>
<td>.39*</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>.34*</td>
</tr>
<tr>
<td>Supernatural Overconfidence</td>
<td>.53*</td>
</tr>
<tr>
<td>Spiritual Guidance</td>
<td>.68*</td>
</tr>
</tbody>
</table>

*Note: * = $p < .01$ (2-tailed)
Table 3. *Spiritual Superiority, Supernatural Overconfidence, Mindfulness, and Spiritual Guidance as a Function of Type of Training in Study 1.*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mindfulness (N = 115)</th>
<th>Energetic (N = 94)</th>
<th>Miscellaneous (N = 138)</th>
<th>Univariate F (2, 344)</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiritual Superiority</td>
<td>M = 4.74&lt;sub&gt;a&lt;/sub&gt;</td>
<td>M = 5.36&lt;sub&gt;b&lt;/sub&gt;</td>
<td>M = 4.95&lt;sub&gt;a&lt;/sub&gt;</td>
<td>8.84, p &lt; .001</td>
<td>.05</td>
</tr>
<tr>
<td>Supernatural Overconfidence</td>
<td>M = 3.37&lt;sub&gt;a&lt;/sub&gt;</td>
<td>M = 4.97&lt;sub&gt;b&lt;/sub&gt;</td>
<td>M = 4.70&lt;sub&gt;a&lt;/sub&gt;</td>
<td>44.23, p &lt; .001</td>
<td>.21</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>M = 3.52&lt;sub&gt;a&lt;/sub&gt;</td>
<td>M = 3.84&lt;sub&gt;b&lt;/sub&gt;</td>
<td>M = 3.74&lt;sub&gt;b&lt;/sub&gt;</td>
<td>13.66, p &lt; .001</td>
<td>.07</td>
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<tr>
<td>Spiritual Guidance</td>
<td>M = 4.77&lt;sub&gt;a&lt;/sub&gt;</td>
<td>M = 5.38&lt;sub&gt;b&lt;/sub&gt;</td>
<td>M = 5.16&lt;sub&gt;b&lt;/sub&gt;</td>
<td>11.21, p &lt; .001</td>
<td>.06</td>
</tr>
</tbody>
</table>

*Note:* Within each row, means with noncommon subscripts are significantly (p < .05 after Bonferroni correction) different in post-hoc contrast tests.
Table 4. Cronbach’s alphas and Pearson correlations in Study 2.

<table>
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<td></td>
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<tr>
<td>2  Spiritual Guidance</td>
<td>.81</td>
<td>.59*</td>
<td></td>
<td></td>
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<td>3  Supernatural Overconfidence</td>
<td>.90</td>
<td>.51*</td>
<td>.35*</td>
<td></td>
<td></td>
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<tr>
<td>4  Self-Esteem</td>
<td>.88</td>
<td>.24*</td>
<td>.38*</td>
<td>.17*</td>
<td></td>
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</table>

Note: * = p < .01 (2-tailed)
Table 5. Cronbach’s alphas and Pearson correlations in Study 3.

<table>
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<th>Measure</th>
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<th>4</th>
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</tr>
</thead>
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<tr>
<td>1   Spiritual Superiority</td>
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<td>-</td>
<td></td>
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<tr>
<td>2   Spiritual Guidance</td>
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<td>.54*</td>
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<tr>
<td>3   Supernatural Overconfidence</td>
<td>.89</td>
<td>.53*</td>
<td>.35*</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>4   Self-Esteem</td>
<td>.87</td>
<td>.17*</td>
<td>.24*</td>
<td>.12*</td>
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<td>5   Communal Narcissism</td>
<td>.82</td>
<td>.47*</td>
<td>.45*</td>
<td>.39*</td>
<td>.33*</td>
<td>-</td>
</tr>
</tbody>
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Note: * = p < .001 (2-tailed)
Figure 1. Spiritual Superiority, Spiritual Guidance, and Supernatural Overconfidence as a Function of Training Background in Studies 1 and 2.